



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,837	04/24/2001	Peter J. Renucci	066303.0196	6086

7590 02/04/2005

Barton E. Showalter, Esq.
Baker Botts L.L.P.
2001 Ross Avenue, 6th Floor
Dallas, TX 75021-2980

EXAMINER

MOORE, IAN N

ART UNIT PAPER NUMBER

2661

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,837

Applicant(s)

RENUCCI ET AL.

Examiner

Ian N Moore

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6 IDS (2001-2002).
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: it is noted that the cross-reference to related applications are recited in page 1. It is suggested to update the status of referenced U.S. applications (e.g. issued as US Patent No.:") since three related applications are being issued as U.S. 6,512,762, U.S. 6,466,573, and U.S. 6,404,763, respectively.

Appropriate correction is required.

Claim Objections

2. Claim 4 is objected to because of the following informalities: **Claim 4** recites the limitation " **the** processing module" line 5. For clarity, it is suggested to change to "a processing module" since this limitation is reciting for the first time.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2661

4. Claim 8 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 and 11 of U.S. Patent No. 6,404,763. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 8 of the instant application merely broadens the scope of the claim 1 of the Patent by eliminating a cross connect, and the scope of claim 11 of the Patent by eliminating a memory and a management module.

It has been held that the omission an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd.App.1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Chea (U.S. 6,574,313).

Regarding Claim 1, Chea discloses a system for providing lifeline telecommunication service (see FIG. 3, VoDSL system with lifeline support; see col. 4, lines 1-6 and abstract), comprising:

a gateway (see FIG. 3, Gateway 4) operable to receive telecommunication information (see FIG. 3, voice information from PSTN) from a telecommunication switch (see FIG. 3, Class 5 voice switch, C5 2) and to generate data packets (see col. 5, lines 55-60; see col. 6, lines 20-30; data frames/packets) for communicating the telecommunication information (see col. 2, lines 53 to col. 3, lines 5);

an analog signal service module (see FIG. 4, Phone Module-CO, PMC 37) remotely coupled to the gateway (see FIG. 4, PMC 37 is remote from gateway 4) and operable to receive the data packets (see col. 6, lines 58-67; see col. 7, lines 54-64; receiving data frames/packets) the gateway and to generate a first analog telephone signal (see FIG. 4, a phone/analog data signal from PMC 37 to telephone PH-m by bypassing ATU-R 30; see col. 7, lines 1-5; 20-65) for communicating the telecommunication information over a local loop circuit (see FIG. 3, (TIP& RING) pair 10; see col. 7, lines 1-4);

an integrated access device (see FIG. 4, Integrated Access Device, IAD-I 212i), coupled to the local loop circuit (see FIG. 4, pair-I) and operable to receive the first analog telephone signal (see FIG. 4, a phone/analog data signal; see col. 7, lines 1-5; 20-65) from the analog signal service module (see FIG. 4, PMC 37 of IAD-C) and to communicate the first analog telephone signal to a subscriber line (see FIG. 4, telephone line PH-m) in a first mode of operation (see col. 7, lines 1-4, 19-25; during a lifeline service mode or bypass mode of operation),

the integrated access device further operable to receive the data packets (see FIG. 4, ATU-R 30 receives frames/packets) from the gateway, to process the data packets to generate a second analog telephone signal (see FIG. 4, a phone/analog signal from ATU-R 30 and

PMm; see col. 7, lines 15-20; see col. 6, lines 1-3) communicating the telecommunication information (see FIG. 4, voice information from PSTN), and to communicate the second analog telephone signal to the subscriber line (see FIG. 4, telephone line PH-m) in a second mode of operation (see col. 6, lines 1-3; see col. 15-20; during normal or conventional mode of operation).

Regarding Claim 2, Chea discloses wherein the data packets are communicated to the integrated access device over the local loop circuit using a digital subscriber line (see FIG. 4, ATU-C 22 and ATU-R 30 is connected via DSL in VoDSL network; see col. 5, lines 55-60; see col. 6, lines 20-30) in the second mode of operation (see col. 6, lines 1-3; see col. 15-20; during normal or conventional mode of operation).

Regarding Claim 3, Chea discloses wherein the integrated access device operates in the first mode if it does not have power (see col. 7, lines 18-23; when a power outage occurs in IAD at the customer premise) and in the second mode if it has power (see col. 7, lines 1-4, 15-20; when IAD at the customer premises is operating in normal condition).

Regarding Claim 4, Chea discloses wherein the gateway is further operable to determine whether it can communicate with the integrated access device using the data packets (see FIG. 6, step 602-610; see col. 8, lines 10-23; gateway determines the operation mode: normal mode or bypass mode of operation);

communicate the data packets to the integrated access device in response to determining that it can communicate with the processing module (see FIG. 4, ATU-R 30) using the data packets (see col. 2, lines 52 to col. 3, lines 15; during normal mode of

Art Unit: 2661

operation, the voice gateway 4 communicates data packets/cells/frames to ATU-R 30 in IAD of customer premises); and

communicate the data packets to the analog signal service module (see FIG. 4, PMC 37) in response to determining that it cannot communicate with the integrated access device using the data packets (see FIG. 4, ATU-R 31; see FIG. 6, steps 604-610; see col. 8, lines 11-22; during bypass mode of operation when there is power outage in IAD of customer premises, the gateway 4 communicates data packets/cells/frames to PMC-37 via ATU-R 31).

Regarding Claim 5, Chea discloses wherein the gateway determines that it cannot communicate with the integrated access device if the gateway cannot maintain a virtual circuit between itself and the integrated access device (see FIG. 3, a circuit between gateway 4 and IAD 12i; note that when there is a power failure in IAD 12i, the circuit between gateway 4 and IAD 12i is dropped, thus there is no circuit to maintain; see col. 6, lines 5-20).

Regarding Claim 6, Chea discloses a processing module (see FIG. 4, ATU-R 30) operable to receive the data packets from the gateway (see FIG. 3, gateway 4) and to process the data packets to generate the second analog telephone signal (see FIG. 4, a phone/analog signal from ATU-R 30 via PMm to PH-m; see col. 7, lines 15-20; see col. 6, lines 1-3) communicating the telecommunication information in the second mode of operation (see col. 6, lines 1-3; see col. 15-20; during normal or conventional mode of operation); and

wherein the integrated access device a bypass switch (see FIG. 4, Relay Switch Kb) operable to communicate the first analog telephone signal (see FIG. 4, a phone/analog data signal from PMC 37 via Kb to telephone PH-m by bypassing ATU-R 30; see col. 7, lines 1-5; 20-65) to the subscriber line (see FIG. 4, PH-m) in the first mode of operation (see col. 7,

Art Unit: 2661

lines 1-4, 19-25; during a lifeline service mode or bypass mode of operation) and to communicate the second analog telephone signal (see FIG. 4, a phone/analog signal from ATU-R 30 and PMm, via Kb, to telephone PH-m; see col. 7, lines 15-20; see col. 6, lines 1-3) to the subscriber line (see FIG. 4, PH-m) in the second mode of operation (see col. 6, lines 1-3; see col. 15-20; during normal or conventional mode of operation); see col. 7, lines 15-26; see col. 8, lines 55-65.

Regarding Claim 7, Chea discloses the telecommunication information is voice information (see FIG. 3, voice information from PSTN; see col. 2, lines 14-64); and

the first and second analog telephone signals are voice signals (see FIG. 4, PH-m is the analog phone line that carries voice signals; see col. 3, lines 10-14; see col. 7, lines 10-15).

Regarding Claim 8, Chea discloses a system for providing lifeline telecommunication service (see FIG. 3, VoDSL system with lifeline support) to customer premises equipment (see FIG. 3, Customer premises, IAD 212), comprising:

telecommunication interface (see FIG. 8, DSLAM 8 interface towards regional switching center; see FIG. 4, AIB interface 20) operable to receive telecommunication information (see FIG. 3, voice information from PSTN) from a telecommunication switch (see FIG. 3, Class 5 voice switch, C5 2); see col. 2, lines 56-60; 53-55;

a data packet service module (see FIG. 4, ADSL termination unit, ATU-C 22a-n) coupled to the telecommunication interface (see FIG. 4, AIB interface 20) and operable to receive the telecommunication information from the telecommunication interface (see FIG. 4, ATU-C receives voice information from PSTN) and to generate data packets for

Art Unit: 2661

communicating the telecommunication information (see col. 6, lines 34-39; see col. 7, lines 15-17; 49-53; generates data frames/packets for voice data signals),

the data packet service module further operable to communicate the data packets to an analog signal service module (see FIG. 4, Phone Module-CO, PMC 37; from ATU-C 22i to PMC 37 via ATU-R 31; see col. 7, lines 49-53) in a first mode of operation (see col. 7, lines 1-4, 19-25; during a lifeline service mode or bypass mode) and

to communicate the data packets over a local loop circuit (see FIG. 3, (TIP& RING) pair 10; see col. 7, lines 1-4) to customer premises equipment (see col. 7, lines 15-20; from ATU-C 22i to ATU-R 30 of CPE) in a second mode of operation (see col. 6, lines 1-3; see col. 15-20; during normal or conventional mode).

Regarding Claim 9, Chea discloses the data packet service module communicates the data packets (see col. 6, lines 34-39; see col. 7, lines 15-17; 49-53; generates data frames/packets) over the local loop circuit (see FIG. 3, (TIP& RING) pair 10; see col. 7, lines 1-4) to the customer premises equipment using a digital subscriber line access multiplexer (DSLAM) (see FIG. 4, DSLAM 8; note that a DSLAM 8 comprises ATU-C 22, thus, it is clear that ATU-C communicates to CPE using a DSLAM 8; see col. 5, lines 60-64; see col. 2, lines 64 to col. 3, lines 15).

Regarding Claim 10, Chea discloses a management module (see FIG. 3, a combined system of OSS (i.e. element management systems, EMSs) and call processing software/module in the gateway 4; see col. 6, lines 15-20; see col. 7, lines 14-50; see col. 8, lines 12-15) operable to:

determining whether the data packet service module can communicate data packets with the customer premises equipment (see FIG. 6, step 602-610; see col. 8, lines 10-23; the combined system determines the operation mode of ATU-C: normal mode or bypass mode of operation);

select the first mode of operation in response to determining that the data packet service module cannot communicate data packets with the customer premises equipment (see FIG. 4, ATU-R 31; see FIG. 6, steps 604-610; see col. 8, lines 11-22; during bypass mode of operation when there is power outage in the customer premises, ATU-C 22 can not directly communicate data packets/cells/frames with ATU-R 30 of the customer premises. Thus, ATU-C 22 communicates to PH-m in the customer premises via ATU-R31 and PMC-37 in bypass mode).

Regarding Claim 11, Chea discloses wherein the management module determines that the data packet service module cannot communicate data packets with the customer premises equipment if the data packet service module cannot maintain a virtual circuit between the gateway and the customer premises equipment (see FIG. 3, a circuit between gateway 4 and IAD 12i; note that when there is a power failure in IAD 12i, the circuit between gateway 4 and IAD 12i is dropped. Thus, there is no circuit to maintain, and ATU-C 22 (see FIG. 4) cannot communicate data packets/frames to ATU-R 30 (see FIG. 4); see col. 6, lines 5-20).

Regarding Claim 12, Chea discloses wherein the analog signal service module (see FIG. 4, PMC 37) is remotely coupled to the telecommunication interface (see FIG. DSLAM 8 interface) using a digital link (see col. 6, lines 40 to col. 7, lines 4; an xDSL digital link

Art Unit: 2661

from PMC 37, via SIB 33 and ATU-R 31, to DSLAM 8 interface. Since PMC 37 is not within DSLAM 8, it is remotely coupled to DSLAM 8).

Regarding Claim 13, Chea discloses the analog signal service module is operable to process the data packets (see col. 6, lines 58-67; see col. 7, lines 54-64; process data frames/packets) to generate an analog telephone signal (see FIG. 4, a phone/analog data signal from PMC 37 to telephone PH-m by bypassing ATU-R 30; see col. 7, lines 1-5; 20-65) for communicating the telecommunication information over the local loop circuit (see FIG. 3, (TIP& RING) pair 10; see col. 7, lines 1-4) to the customer premises equipment (see FIG. 4, Customer premises).

Regarding Claim 14, Chea discloses a method (see FIG. 5 and 6) of providing lifeline telecommunication service to customer premises equipment (see FIG. 3, VoDSL system with lifeline support) using a gateway (see FIG. 4, gateway 4), comprising:

receiving telecommunication information (see FIG. 3, gateway receives voice information from PSTN) from a telecommunication switch (see FIG. 3, via Class 5 voice switch, C5 2); see col. 2, lines 56-60; 53-55,

generating data packets for communicating the telecommunication information (see col. 6, lines 34-39; see col. 7, lines 15-17; 49-53; generates data frames/packets for voice data signals);

communicating the data packets to an analog signal service module (see FIG. 4, Phone Module-CO, PMC 37; from ATU-C 22i to PMC 37 via ATU-R 31; see col. 7, lines 49-53) in a first mode of operation (see col. 7, lines 1-4, 19-25; during a lifeline service mode or bypass mode) and; and

communicating the data packets over a local loop circuit (see FIG. 3, (TIP& RING) pair 10; see col. 7, lines 1-4) to customer premises equipment (see col. 7, lines 15-20; from ATU-C 22i to ATU-R 30 of CPE) in a second mode of operation (see col. 6, lines 1-3; see col. 15-20; during normal or conventional mode).

Regarding Claim 15, Chea discloses processing the data packets (see col. 6, lines 58-67; see col. 7, lines 54-64; process data frames/packets) to generate a first analog telephone signal (see FIG. 4, a phone/analog data signal from PMC 37 to telephone PH-m by bypassing ATU-R 30; see col. 7, lines 1-5; 20-65) at the analog signal service module (see FIG. 4, PMC 37); and

communicating the first analog signal over the local loop circuit (see FIG. 3, (TIP& RING) pair 10; see col. 7, lines 1-4; , a phone/analog data signal from PMC 37 to telephone PH-m by bypassing ATU-R 30 over the local loop pair 10).

Regarding Claim 16, Chea discloses communicating the first analog telephone signal (see FIG. 4, a phone/analog data signal from PMC 37; see col. 7, lines 1-5; 20-65) from the local loop circuit (see FIG. 4, local pair-I) to a subscriber line (see FIG. 4, telephone line PH-m) in the first mode of operation (see col. 7, lines 1-4, 19-25; during a lifeline service mode or bypass mode of operation); and

processing the data packets (see FIG. 4, ATU-R 30 process frames/packets) from the local loop circuit (see FIG. 4, local pair-I) to generate a second analog telephone signal (see FIG. 4, generating a phone/analog signal from ATU-R 30 to PH-m via PMm; see col. 7, lines 15-20; see col. 6, lines 1-3) for communication to the subscriber line (see FIG. 4, telephone

Art Unit: 2661

line PH-m) in the second mode of operation (see col. 6, lines 1-3; see col. 15-20; during normal or conventional mode of operation).

Regarding Claim 17, Chea discloses using a digital subscriber line (see FIG. 4, ATU-C 22 is connected via DSL in VoDSL network to/from customer premises; thus, it is clear that it is using DSL line; see col. 5, lines 55-60; see col. 6, lines 20-30).

Regarding Claim 18, Chea discloses identifying a destination integrated access device (IAD) (see FIG. 4, IAD-i) for the telecommunication information (see FIG. 6, 602,604; the gateway 4 identifies call; see col. 8, lines 10-22; note that in order to establish the circuit, the gateway must identify the IAD by utilizing destination phone number);

determining whether the gateway can communicate with the IAD using the data packets (see FIG. 6, step 602-610; see col. 8, lines 10-23; gateway 4 determines the operation mode (i.e. normal mode or bypass mode of operation) to communicate with IAD-i);

selecting the first mode of operation in response to determining that the gateway cannot communicate with the IAD using the data packets (see FIG. 4, ATU-R 31; see FIG. 6, steps 604-610; see col. 8, lines 11-22; selecting/using a bypass mode of operation when there is a power outage in IAD of customer premises, the gateway 4 communicates data packets/cells/frames to PH-m in IAD-I via ATU-R 31 and PMC-37 in bypass mode), and

selecting the second mode of operation in response to determining that the gateway can communicate with the IAD using the data packets (see col. 2, lines 52 to col. 3, lines 15; selecting/using a normal mode of operation when there is no power outage and, the gateway 4 communicates data packets/cells/frames to ATU-R 30 in IAD-i).

Regarding Claim 19, Chea discloses determining whether the gateway can maintain a virtual circuit between itself and the IAD (see FIG. 3, a circuit between gateway 4 and IAD 12i; see FIG. 6, step 602, 604, 606; the call processing software in the gateway determine whether there is a call can be established/maintained by the gateway via a circuit between the gateway and IAD 12i, that is, determining whether the call is for normal line/circuit or lifeline support telephone line/circuit; see col. 6, lines 15-26; see col. 5, lines 60-35; see col. 7, lines 45-54; see col. 8, lines 10-22).

Regarding Claim 20, Chea discloses determining that the gateway cannot communicate with the IAD using the data packets if the IAD loses powers, is disconnected from the local loop circuit, or has an internal failure (see col. 7, lines 15-22; see col. 6, lines 4-20; power outage or failure of IAD-I so that gateway 4 cannot established connection with normal operation from since the is no power at IAD).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 571-272-3085. The examiner can normally be reached on M-F: 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gmm

INM

1/25/05



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600